**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from pgs, 14-18: **Network communication standards**

**Networks are classified according to below and we will study the following:**

1. **Network Categories: LAN, WAN**
2. **Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet**
3. **Network communication standards**
4. **Network hardware and software**
5. **Transmission media**
6. **Network security**

**Network communication standards**

1. Why are network standards required?

Network standards established to ensure hardware and software components will work on any network.

1. What is a protocol?

Rules of which we exchange data

1. What is the OSI?

Open System Interconnection

**Ethernet**

1. Describe the nature of Ethernet.

The way in which cables communicate to a network

1. What are frames?

They contain packets of information.

1. Identify the 4 components of all Ethernet frames.
2. Fig. 1-9 on p 17 lists the Ethernet type, cable type, maximum length and transfer rate for Ethernet transmissions. The College typically uses 100BaseTX, Cat 5 or10Gbase-T. What are their respective maximum lengths and transfer rates?

100BaseTX, 85m, 100mbps

**TCP/IP**

1. Describe the nature of TCP/IP.

The protocol on which the internet is based and is the standard for transmission over the internet.

1. TCP/IP uses smaller packets than other protocols. Why is this an advantage on the internet?

there are many different pathways from the originating device to destination device & packets don’t all travel same path

**802.11 wireless standard**

**1** What does this standard do?

Defines how two computers or devices can communicate using radio waves.

2 What is a Wi-Fi network?

Network using 802.11 standard is known as a Wi-Fi network.

3 Different wireless standards transmit at different frequencies. What is the advantage of the newer 802.11n standard?

802,11n transfer rate of 108 Mbps to 600 Mpbs & supports 70 metres Vs 50 mtrs of earlier versions.